NOTES:
1. THE WORK SHALL CONSIST OF INSTALLING FLOW DIVERSIONS FOR THE PURPOSE OF EROSION CONTROL, WHEN CONSTRUCTION ACTIVITIES TAKE PLACE WITHIN THE STREAM CHANNEL SUCH AS BANK STABILIZATION OR BRIDGE ABUTMENT CONSTRUCTION.

2. THE DIVERSION STRUCTURE SHALL BE INSTALLED FROM UPSTREAM TO DOWNSTREAM.

3. THE EFFECTIVE CHANNEL WIDTH SHALL BE SIZED TO PASS A ONE YEAR STORM EVENT PEAK FLOW, OR 1/3 OF STREAM WIDTH, WHICHEVER IS GREATER.

4. THE SANDBAG DIVERSION HEIGHT (H) SHALL BE 1' (300) ABOVE THE PEAK ELEVATION OF THE ONE YEAR STORM.
NOTES:

0. THE WORK SHALL CONSIST OF INSTALLING A SANDBAG DIKE FOR THE PURPOSE OF EROSION CONTROL.
   WHEN CONSTRUCTION ACTIVITIES TAKE PLACE WITHIN THE STREAM CHANNEL SUCH AS BANK STABILIZATION OR BRIDGE ABUTMENT CONSTRUCTION.

1. THE SANDBAG DIKE SHALL BE INSTALLED AT THE UPSTREAM LOCATION FIRST.

2. THE HEIGHT OF THE SANDBAG DIKE SHALL BE 1'3" ABOVE THE PEAK ELEVATION OF THE ONE YEAR STORM, OR EQUAL WITH THE TOP OF BANK, WHICHEVER IS LESS, SEE PLANS FOR INFORMATION.

3. THE SPILLWAY SHALL BE SIZED TO PASS A 1/100 YEAR STORM EVENT PEAK FLOW, SEE PLANS.

4. THE PIPE, WHEN UTILIZED, SHALL BE SIZED TO PASS THE STREAM BASE FLOW.
1. All surface water flowing or diverted toward construction entrances shall be piped under the entrance, if necessary. A mountable berm with 5:1 slopes shall be allowed to facilitate placement of pipes in shallow conditions.

2. The location and number of stabilized construction entrances shall be as indicated on the plans. Any change in location, addition, or elimination of an entrance shall be approved in advance by the Engineer.

3. Drainage pipe, if utilized, shall be paid for separately under the appropriate bid item.

4. The top 2" of stone shall be removed and replaced with 2" of clean stone when voids are filled or as directed by the Engineer.

DELAWARE
DEPARTMENT OF TRANSPORTATION

STABILIZED CONSTRUCTION ENTRANCE

STANDARD NO. E-21 (2006)  SHT. 1 OF 1

APPROVED  RECOMMENDED
12/5/05  11/27/05

09/09/2005
FLOATING TURBIDITY CURTAIN

NOTE: 1) ADDITIONAL PANEL REQUIRED FOR DEPTHS GREATER THAN 5' (1500). 2) FLOATING TURBIDITY CURTAIN SHALL REACH BOTTOM UP TO DEPTHS OF 10' (3000) BY USING TWO PANELS. DEPTHS GREATER THAN 10' (3000) SHALL REQUIRE SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
SECTION

ELEVATION

PLAN VIEW

SHALLOW WATER/MARSH APPLICATION

STAKED TURBIDITY CURTAIN

DELAWARE
DEPARTMENT OF TRANSPORTATION

TURBIDITY CURTAIN

STANDARD NO. E-23 (2006) SHT. 2 OF 2

APPROVED

RECOMMENDED

12/5/05

11/9/05

09/08/2005
NOTES:

1. THE PORTABLE SEDIMENT TANK SHOWN MAY BE USED IN SITES WHERE SPACE IS LIMITED TO CONSTRUCT A DEWATERING BASIN.

2. THE MAXIMUM PUMP DISCHARGE INTO THIS TYPICAL PORTABLE SEDIMENT TANK SHALL BE 425 GALLONS PER MINUTE (256 LITERS PER SECOND). THE FILTER FABRIC SHALL BE REPLACED WHEN THE PORTABLE SEDIMENT TANK CAN NO LONGER ALLOW THIS FLOW RATE, WHEN THERE IS A TEAR, OR WHEN DIRECTED BY THE ENGINEER.

3. SEVERAL UN-CONNECTED OR CONNECTED IN PARALLEL PORTABLE SEDIMENT TANKS MAY BE USED WHEN A HIGHER FLOW RATE IS NEEDED TO DE-WATER THE JOB.

4. OTHER DESIGNS MAY BE USED PROVIDED THE HYDRAULIC DESIGN IS SUBMITTED TO AND APPROVED BY THE STORMWATER ENGINEER.

SECTION B-B

SECTION A-A
**INITIAL TRENCH ANCHOR DETAIL**
Applied at the downstream end of ditch

**TERMINAL TRENCH ANCHOR DETAIL**
Applied at the upstream end of ditch

**LONGITUDINAL TRENCH ANCHOR DETAIL**
Staples to be placed at 6" intervals (1500 mm) spacing across dominant flow.

**OVERLAP DETAIL**
Staples to be placed at 6" intervals (1500 mm) spacing across dominant flow.

**STABILIZATION OF DITCHES PLAN**

1. Additional staples not shown are required at overlaps, ends, check slots and edges. See appropriate details for staple placement.
2. Staples are to be staggered.
3. Topsoil under turf reinforcement mat is to be tracked and seeded.

**STABILIZATION OF DITCHES SECTION A-A**
Turf reinforcement mat to be centered along flow line of ditch.
ONE-WAY SHARED USE PATH INTERSECTION

REMOVABLE BOLLARD
SEE DETAIL

4" (100) YELLOW THERMOPLASTIC

5' (1500) MINIMUM

END OF PATH

2'-1600

10' (3050)

6" (150)

1' (305)

TYP.

SEE NOTE 1

REMOVABLE BOLLARD
SEE DETAIL

4" (100) YELLOW THERMOPLASTIC

5' (1500) MINIMUM

END OF PATH

2'-1600

10' (3050)

6" (150)

1' (305)

TYP.

SEE NOTE 1

TWO-WAY SHARED USE PATH INTERSECTION

REMOVABLE BOLLARD
SEE DETAIL

4" (100) YELLOW THERMOPLASTIC

5' (1500) MINIMUM

END OF PATH

2'-1600

10' (3050)

6" (150)

1' (305)

TYP.

SEE NOTE 1

REMOVABLE BOLLARD
SEE DETAIL

4" (100) YELLOW THERMOPLASTIC

5' (1500) MINIMUM

END OF PATH

2'-1600

10' (3050)

6" (150)

1' (305)

TYP.

SEE NOTE 1

NOTE:
1. THE 4" (100) CONCRETE SHARED-USE PATH SHALL BE FINISHED TO INCLUDE A TEXTURED WARNING SURFACE BY USING A JOINT STRIKE TO PRODUCE A 1/4" (6) DEEP V-JOINT AT 6" (150) O.C. PAYMENT FOR INSTALLING THE BROACHED FINISH SHALL BE INCIDENT TO THE SIDEWALK CONSTRUCTION.
2. IF THE SHARED USE PATH ENDS AT A ROADWAY OR RAILROAD CROSSING, THEN DETECTABLE WARNING TRUNCATED DOMES 24" (600) LONG AND THE FULL WIDTH OF THE PATH SHALL BE INSTALLED. SEE SHEET C-2.
3. STEEL TUBE TO EXTEND 1/2" (13) ABOVE GROUND WITH CONCRETE TO SLOPE AWAY FROM TUBE TO KEEP WATER AND SEDIMENT FROM DRAINING INTO TUBE.
4. BOLLARDS ARE NOT REQUIRED FOR A SHARED-USE PATH LESS THAN 6' (1800) WIDE.
5. SHAPE THE POST AS NECESSARY SO THAT IT WILL FIT IN THE STEEL TUBE.

DELTA WICK
DEPARTMENT OF TRANSPORTATION
STANDARD NO. M-3 (2005) SHT. 1 OF 1 RECOMMENDED

APPROVED

08/04/2005

12/5/05
NOTES:

1. Type 1 conduit junction well shall be precast concrete. At least one hole in precast wells will be of a 5" (125) diameter completely through the wall. Unused holes shall be plugged.

2. Type 2 and Type 3 conduit junction wells shall be brick and will conform to standard specifications for brick masonry. Joints shall be concave type.

3. Type 2 walls will be a nominal 4"(100) thick. Type 3 wall will be a nominal 8"(200) thick.

4. Type 2 and Type 3 conduit junction wells shall not be placed under any type of pavement.

5. All conduit junction wells constructed within pavement, sidewalks, etc. will be constructed flush with the surface of the same. Installation in unpaved areas will be constructed above grade and graded to drain away from conduit junction well.
NOTES:

1. Type 4 conduit junction well shall be precast concrete, at least one hole in precast wells will be of a 5" (125) diameter completely through the wall. Unused holes shall be plugged.

2. All conduit junction wells constructed within pavement, sidewalks, etc., will be constructed flush with the surface of the same. Installation in unpaved areas will be constructed above grade, and graded to drain away from conduit junction well.
NOTES:
1. TYPE S CONDUIT JUNCTION WELL SHALL BE PRECAST CONCRETE. AT LEAST ONE HOLE IN PRECAST WELLS WILL BE OF A 5" (125MM) DIAMETER COMPLETELY THROUGH THE WALL. UNUSED HOLES SHALL BE PLUGGED.
2. ALL CONDUIT JUNCTION WELLS CONSTRUCTED WITHIN PAVEMENT, SIDEWALKS, ETC. WILL BE CONSTRUCTED FLUSH WITH THE SURFACE OF THE ROAD. INSTALLATION IN UNGRADED AREAS WILL BE CONSTRUCTED ABOVE GRADE AND GRADED TO DRAIN AWAY FROM CONDUIT JUNCTION WELL.

SECTION A-A

DELAWARE
DEPARTMENT OF TRANSPORTATION

CONDUIT JUNCTION WELL, TYPE S

STANDARD NO. T-5 (2005) SHT. 1 OF 1

APPROVED

RECOMMENDED

09/08/2005
ROUND BASE

UNDERGROUND CONDUIT ENDS SHALL BE CAPPED WITH A GALVANIZED THREADED CONDUIT PLUG UNLESS CONNECTED TO AN EXISTING CONDUIT.

BOLT CIRCLE DIAMETER TO BE AS DIRECTED BY THE ENGINEER

EQUALLY SPACED *4 (#3) REINFORCING BARS

GROUND FOR POLE TO BE ATTACHED TO GROUND RODS (4'10" X 24")

2½" x 64" CONDUIT SWEEPS

EXISTING CONDUIT

SQUARE BASE

UNDERGROUND CONDUIT ENDS SHALL BE CAPPED WITH A GALVANIZED THREADED CONDUIT PLUG UNLESS CONNECTED TO AN EXISTING CONDUIT.

BOLT CIRCLE DIAMETER TO BE AS DIRECTED BY THE ENGINEER

EQUALLY SPACED *8 (#2) REINFORCING BARS

GROUND FOR POLE TO BE ATTACHED TO GROUND RODS (4'20" X 24")

2½" x 64" CONDUIT SWEEPS

EXISTING CONDUIT

NOTE: BASE DEPENDENT ON POLE AND EQUIPMENT TO BE ATTACHED.

DELaware DEPARTMENT OF TRANSPORTATION

POLE BASES

STANDARD NO. T-6 (2006) SHT. 1 OF 1

APPROVED 11/5/05

RECOMMENDED 11/6/05

02/09/2005
NOTES:

1. UNDERGROUND CONDUIT ENDS SHALL BE CAPPED WITH A GALVANIZED THREADED CONDUIT PLUG UNLESS CONNECTED TO AN EXISTING CONDUIT.

2. PLACE 2 EACH 6"x8"x500 x 1/2"x43 P.V.C. SCHEDULE 40 (TYP) VENTS IN THE GROUT AS DIRECTED IN THE FIELD BY THE ENGINEER.
NOTES:
A. STUB POST TO BE SUPPLIED BY THE DEPARTMENT'S TRAFFIC, ENGINEERING, AND MANAGEMENT SECTION.

SECTION A-A

1 - #3 (M2) SPIRAL BAR, 504" (12800) LONG AT 8" (200) PITCH

8 - #5 (M6) BARS, 4½' (1350) LONG
NOTES:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE CONDUIT AGAINST ANY POSSIBLE DAMAGE IN PAVING OPERATIONS.
3. THE LEAD-IN WIRE SHALL BE RUN THROUGH THE RUBBER OF THE WEATHERPROOF FITTING.

DETAIL A - TYPICAL INSTALLATION UNDER INTEGRAL CURB AND GUTTER

DETAIL B - TYPICAL INSTALLATION UNDER CURBING

DETAIL C - TYPICAL INSTALLATION WITHOUT CURBING
WIRE SLOT CONSTRUCTION

NOTES:

1. SAW CUTS FOR WIRE SLOT CONSTRUCTION SHALL BE EXTENDED BEYOND THE CORNERS SO THAT THE SLOT IS FULL DEPTH AT TURN POINTS. A FORTY-FIVE (45) DEGREE ANGLE SHALL BE CUT 12" CDOF/BACK FROM THE POINT OF THE EXTENDED CORNER.

2. THE LONGITUDINAL / TRANSVERSE CUT SHALL BE STOPS APPROXIMATELY 2" ISO FROM THE CORNER TO PREVENT THE TRAPEZOIDAL SHAPE OF THE PAVEMENT FROM BREAKING.

3. A MAXIMUM OF TWO LOOP DETECTORS CAN BE SPLICED TO ONE LEAD-IN CABLE. THE DETAIL ILLUSTRATES THE METHOD OF SPLICING TWO LOOP DETECTORS LOOP *1 AND LOOP *2 TO A LEAD-IN CABLE.

4. LOOP DETECTOR SHALL BE CENTERED IN TRAVEL LANE.

SECTION A - A

SECTION B - B

SPlicing Detail

SEE STANDARD DETAILS SHEET T-4 FOR LOOP DETECTOR TO JUNCTION WELL CONNECTION DETAIL

TO CONTROLLER

DELAWARE DEPARTMENT OF TRANSPORTATION

STANDARD NO. T-9 (2006) SHT. 1 OF 1 RECOMMENDED

APPROVED

12/5/05

11/28/06

01/9/2005
WIRE SLOT CONSTRUCTION

NOTES:
1. SAW CUTS FOR WIRE SLOT CONSTRUCTION SHALL BE EXTENDED BEYOND THE CORNERS SO THAT THE SLOT IS FULL DEPTH AT TURN POINTS. A FORTY-FIVE (45) DEGREE ANGLE SHALL BE CUT 1' 0.3m BACK FROM THE POINT OF THE EXTENDED CORNER.
2. THE LONGITUDINAL / TRANSVERSE CUT SHALL BE STOPPED APPROXIMATELY 2' 150i FROM THE CORNER TO PREVENT THE TRIANGULAR PORTION OF THE PAVEMENT FROM BREAKING.
3. A MAXIMUM OF TWO LOOP DETECTORS CAN BE SPliced TO ONE LEAD-IN CABLE. THE DETAIL ILLUSTRATES THE METHOD OF SPlicing TWO LOOP DETECTORS LOOP #1 AND LOOP #2 TO A LEAD-IN CABLE.
4. LOOP DETECTOR SHALL BE CENTERED IN TRAVEL LANE.

SECTION A - A

SECTION B - B

DELTA.
DEPARTMENT OF TRANSPORTATION

STANDARD NO. T-10 (2006) SHT. 1 OF 1

APPROVED D. Winifred 12/5/05

RECOMMENDED J. Silverman 11/6/05

01/19/2006
TOP VIEW

MATCH LINE A - A

WOOD POLE

MATCH LINE A - A

WOOD POLE

SPAN WIRE ATTACHMENT BETWEEN POLES

NOTE: SPAN WIRE ATTACHMENT BETWEEN METAL POLES IS THE SAME AS SHOWN FOR WOOD POLES EXCEPT THAT THE STRAIN PLATES AND GUY HOOKS ARE NOT USED. FOR DETAIL SEE T-14 SHEET 2 - "DEAD END MESSENGER WIRE ATTACHMENT, METAL POLES ".

DELAWARE
DEPARTMENT OF TRANSPORTATION

SPAN WIRE ATTACHMENT BETWEEN POLES

STANDARD NO.  T-12 (2005)  SHT. 1  OF  2  APPROVED  12/5/05  RECOMMENDED  11/5/05

09/09/2005
WOOD POLES

METAL POLES

NOTES: II. INSTALLATION METHOD SHOWN FOR DEAD END MESSERER WIRE ATTACHMENT TO METAL POLES SHALL BE USED FOR SPAN WIRE ATTACHMENT BETWEEN METAL POLES.
NOTES:
1. TYPE 6 CONDUIT JUNCTION WELL SHALL BE PRECAST POLYMER CONCRETE.
2. ALL CONDUIT JUNCTION WELLS CONSTRUCTED WITHIN PAVEMENT, SIDEWALKS, ETC. WILL BE CONSTRUCTED FLUSH WITH THE SURFACE OF THE SAME. INSTALLATION IN UNPAVED AREAS WILL BE CONSTRUCTED ABOVE GRADE AND GRADED TO DRAIN AWAY FROM THE CONDUIT JUNCTION WELL.
3. POLYMER CONCRETE COVERS SHALL BE THE HEAVY-DUTY TYPE WITH A DESIGN LOAD OF 5000 LBS (2268 KG) OVER A 10' (305) SQUARE.

PLAN VIEW

SECTION A-A
**NOTES:**

1. INVERTED CONFIGURATION SHALL BE USED FOR SPAN MOUNT.
2. SPAN WIRE MOUNTING HARDWARE SHALL BE SUPPLIED BY THE DEPARTMENT.
3. TEFLON TAPE SHALL BE APPLIED TO THREADS BEFORE MOUNTING.
4. ROUTE THE LEAD-IN CABLE THROUGH THE METAL CAP AND THE RUBBER PLUG.
   REPLACE THE METAL CAP, SEALING THE CABLE ENTRY PORT. TIGHTEN THE
   METAL CAP SO THE CABLE WILL NOT SLIDE THROUGH THE RUBBER PLUG.